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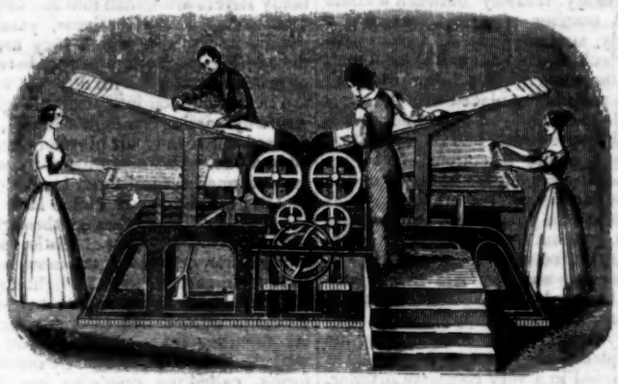

HOE'S DOUBLE CYLINDER PRESS.

## THE POWER PRINTING PRESS.

It is nearly thirty years since a German resident in England, by the name of Kœnig, invented a steam printing press. The first paper printed by this machine was *The Times*, of London; the speed was 1100 impressions per hour. It was justly considered the greatest achievement connected with printing since the invention of cast metal types. The circulation of the Times was so great as to require the setting of the types four times, in order to employ four presses in running off the enormous edition. By means of this machine much labor and delay were saved. Ten years afterwards it was so far improved by the inventor as to print the sheet on both sides, when the speed was increased to 2000 papers, or 4000 impressions per hour. But it was then a very complicated contrivance, and required the attendance of eight persons, besides the motive power. It appears by a subsequent article in the Times that the inventor returned to the continent but poorly compensated for his ingenuity and industry.

The introduction of these machines into this country is quite a recent event; the excellent hand presses manufactured by the Messrs. Hoe & Co. of New York, known as the Smith and Washington presses, being so great an improvement upon the Ramage press in general use twenty years ago, that they seemed to supply every desideratum. Since the introduction of the Napier press, however, a great variety of these machines have sprung up, principally the inventions or improvements of American machinists. Of these the double cylinder presses of Messrs. R. Hoe & Co., of which the accompanying cut is a representation, for simplicity of contrivance, good workmanship, and speed, stand foremost. They combine some important improvements upon the English Napier press, constituting a system of machinery almost organic, which while it relieves the human frame of its most laborious efforts in printing, far exceeds all human powers in despatch. Since they have been brought into use, a new class of papers has sprung up in the larger American cities, whose circulation more than quadruples the most successful journals that preceded them, and which without their assistance it would be impossible to produce in sufficient quantities to supply the demand. Of these *The Sun* is the oldest, and has a reputed circulation of 36,000. Now it would require twelve hand presses at the ordinary speed, running day and night, without intermission, to accomplish that amount of labor.

Numerous and expensive attempts to apply steam power to machines with flat printing surfaces have been made since the introduction of the cylindrical press, both in England and America. The greatest success seems to have attended our American inventors, and the Adams and Tuffts presses, of Boston, are perhaps more numerous than the cylinder press. They are preferred for book printing on account of the quality of work they produce, and the price at which they are afforded. But we understand that the Messrs. Hoe have introduced some recent improvements by which they combine speed and accuracy of register with the cylinder press, and are enabled to produce the best of work with them. The price varies from $800 to $2,500. The utmost speed of this press is over 5000 impressions per hour.

By the aid of steam presses, the three grand requisites, speediness of execution, quantity, and cheapness of labor, are attained to an extent demanded by the necessities of the age, and, without the aid of such machinery, the tide of knowledge and human improvement would be forced back, greatly to the injury of society. Whatever may have been the prejudices of the profession with regard to machine printing, the experience of a few years has proved how ill-founded were those melancholy anticipations; and judging from the extraordinary perfection to which it has been brought, it may justly appear that no further improvements could be effected in the art of printing. But there is no discovered limit to human ingenuity. Every year is producing some curious if not valuable addition to printing machinery, and no one can foresee the termination of this, or any other class of improvements within the compass of manufacturing industry.

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Talking very much, and lying, are cousin germans.

## AERIAL STEAM CARRIAGE.

Much as, now-a-days, we have to do with wonders, it is not often the lot of a public journalist to announce a matter so extraordinary as that which forms the subject of the present notice. Mr. Henson professes to have discovered the means of flying through the air in any direction at pleasure. We are quite aware that similar pretentions have been put forth in past times, and that they have all most signally failed, having done nothing but to evince the strong desire men have ever felt to traverse the unobstructed space above them. We should share the general incredulity produced by this invariable discomfiture, if we did not see in Mr. Henson's design a specific contrivance which we believe will certainly lead to a different result, and did not find in the elaboration of every part of his aerial vehicle evidence of talent and perseverance which are capable of working onward till they reach a successful issue.

We have often looked up with wonder at rooks sailing lazily through air on a summer's day, whirling about at all possible ease, with hardly the trouble of stiring a wing. What keeps them up? Does nature, out of liking for their habits, suspend for them the law of gravity? The sportsman's deadly aim soon dispels that fancy. We could think of no likely explanation, and so wondered on and let the matter alone. Yet if men were to talk of flying without explaining this fact to us, we should greatly doubt their schemes. Perhaps one reason why we are disposed to put faith in Mr. Henson's plan may be that it has somewhat instructed us in this particular.

One thing is clear,—that the rook, when sauntering about in the air so quietly, is making very little effort; somehow or other, he keeps up without work done *just then*. Now, all these schemes for flying we have met with (setting aside ballooning) depend on the continued hard labor of him who is to fly; and it always happened that, with his hardest labor, he very quickly came to the ground. Mr. Hanson follows a different plan, and (as is plainly seen, now it is pointed out) it is just that which nature adopts. His machine (which we shall describe anon) starts from the top of an inclined plane: before it reaches the bottom it acquires velocity so great that the impact of its extended wings on the air amply suffices for its support. To gain that impact on the under surface the machine advances with its front edge a little raised. We think this is perfectly analogus to the action of many birds; while they have the requisite forward velocity, the expanse of their pinions and breast, duly presented to the air in front, is sufficient, without the expenditure of muscular effort, to hinder their descent. But these very same easy sailing rooks show very different action when they start from the ground: then, every muscle is put in requisition to sustain them while they get the necessary velocity; and it is by degrees, as their flight becomes swifter, that they can safely relax their efforts. Nor does it seem of much consequence how this velocity is obtained: some birds seem to help themselves by running along the ground before they rise; and others, with striking similarity to Mr. Henson's plan, will start from the top of a tree or the summit of a rock by first making a large descent. The effect of all this is very easily understood, and the bold design of Mr. Henson is so far entitled to confidence as a faithful imitation of nature.

But neither the rook nor the machine can go far on this plan. The same resistance of the air which the velocity brings to act for their advantage in one way, acts against them, though much more feebly, in another: it sustains their weight, but it somewhat hinders their progress; and the speed of that

progress being gradually diminished, the sustaining effect is so too, until the air no longer yields the requisite contraction of the weight. To remedy this, the bird makes light and easy strokes of its wings, which are so formed as to afford the necessary recruit of the decaying speed; just to the like effect Mr. Hanson put on board his aerial carriage a small and very ingenious steam engine, which, by means of vanes or propellers, constantly countervails the forward resistance, and thus keeps up the original sustaining velocity.

Now let us contrast this mode of proceeding with that of preceding projectors. They have all judged it requisite to carry in the flying vehicle all the power necessary to its entire working. It did not occur to them that a certain degree of speed, united with an appropriate conformation of the front, would necessarily make the air sustain the carriage, and that to attain that velocity at starting required much more power than was requisite for afterwards maintaining it: they therefore always encumbered themselves with a weight either of animate or elemental power, so great that it could not possibly be carried. Mr. Henson does far the greater part of his work before the machine leaves the ground, and he carries with him only the power necessary to accomplish the small remainder. The failure, therefore, of former attempts, is not only no reason for anticipating the like fate for this, but contrariwise the clear detection and effectual avoidance of the cause of former disappointments may justly induce us to calculate on success in the present instance.

The most striking part of the machine is a web of gigantic proportions: it measures 150 feet from right to left, by 30 feet, and serves as wings so far as to sustain the body, but being perfectly jointless, and having none of the motion of wings, it does nothing towards maintaining the forward speed. This office is fulfilled by two sets of propellers, like windmill sails, of twenty feet in diameter, situated one on each side of the tail and actuated by the steam engine. The tail is fifty feet long and is jointed to the middle of the hinder edge of the wings or main web: beneath this important appendage is a rudder, and by the united effects of both the vessel is duly steered both for elevation and direction. All these parts are composed of framework, remarkable for the skill and lightness of its construction, and covered with silk or linen.

To the middle of the wings or main frame, and touching its under surface, are suspended the car and steam engine. The former is entirely enclosed, and is quite capacious enough for the intended burden of the machine.

Beside the great lightness and simplicity of its parts, the steam engine is remarkable for the novelty both of its boiler and its condenser: it is indeed by the singular skill with which he has constructed them, that Mr. Henson has transformed the ponderous steam engine into a contrivance fitted for traversing the regions of the air. The boiler consists of a number of hollow cones placed around and about the furnace, with their truncated points downwards. They are large and numerous enough to present about 100 square feet to the action of the fire, of which about half is exposed to radiating heat. It is calculated, from satisfactory data, that it will supply steam equivalent to the power of twenty horses. The condenser is as original in its design: it consists of a considerable number of small pipes exposed to the rapid current of air produced by the flight of the machine. The device, which has been found perfectly efficient, avoids the necessity of carrying a large weight of water either to blow away in steam after being used, or to condense it. Our engineering friends will be somewhat surprised to learn that this condensing 20-horse power steam engine is worked with but twenty gallons of water, and that its entire weight, water included, is but 600 pounds.

*(To be continued.)*

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LALLA ROOKH.—Moore's celebrated poem, Lalla Rookh, has been rendered into Persian, and sung in the streets of Ispahan. This is a compliment to the brilliant Irish bard of which he may well be proud.

## HISTORY OF A COTTON GOWN.

The reader must now bear in mind, that what has been done to the cotton has *disentangled* and *cleansed* it, but not *straightened* the fibres; to effect this is the object of the next process, called *carding*. We all know how easily and effectually the hair may be straightened by the use of a comb or brush. Now however intricate the cotton-manufacturer's *carding-engine* may be in appearance, its action is in reality midway between a comb and a brush. A number of wires, formed and bent in a precisely similar manner, are inserted into a frame or block at one end, and present their sharp points at the other. This forms a kind of wire-brush; and upon being placed with the wires uppermost, a little cotton placed upon their points and another similar wire-brush laid on the cotton, the movement in opposite directions of the two brushes will *brush* or *comb* out the fibres of cotton and lay them in a parallel and smooth form. This operation is called *carding*, and the two brushes are termed *cards*. About seventy or eighty years ago, the cotton manufacturers, particularly Mr. Peel, Mr. Hargreaves, and Mr. Arkwright, succeeded in fixing the cards to the surface of a cylinder, and to a concave surface applied close to it. By making the cylinder revolve continuously, the cotton, which is placed upon its teeth, becomes combed out or carded in a very complete manner. By subsequent improvements made in those cylinder cards, not only are the cotton fibres combed out straight, but they are at the same time collected together in a narrow flattish roll, called a *sliver*. The fibres of this sliver have just coherent strength enough to hold together. It will then be understood that the operation of *carding* produces three different changes in the appearance of the cotton: the first is, to comb out and parallelise the fibres; the second, to collect it into a sort of sheet so exquisitely fine as to obtain for it from one writer the figurative title of "woven wind;" and the third to collect into a small narrow sliver, midway between a ribbon and a roll in appearance. The carding-engine of modern days, by which all this is effected, is an exceedingly elaborate machine. The cards contain about twenty teeth to an inch in length.

But delicate and beautiful as is the effect produced by the carding-engine, the fibres composing the slivers of cotton have still much to go through before they will be in a fit state for the spinners. In the first place, though the cards have straightened most of the fibres, they have had the effect of *doubling* some of them by catching them in the middle: these doublings must be rectified. Again, although the fibres are arranged tolerably parallel by the carding-engine, yet they are not sufficiently so for subsequent purposes. The sliver, likewise, though delicate, contains too many fibres in thickness: one hundred feet of it contain nearly one pound of cotton. To remedy all these defects is the office of the *drawing-frame*, one of the most beautiful of Arkwright's inventions. It straightens the doubled fibres; it lays them as parallel to one another as possible; it equalises the quality of the cotton, by uniting many slivers into one, so as mutually to equalise each other's defects; and lastly it draws out and elongates the spongy slivers or ribbons, so as to make them both narrower and thinner. All this is effected by drawing the sliver successively between three pair of rollers, the two forming each pair being kept in close contact. The pairs are arranged side by side, so that after the sliver has passed between one pair, it is seized and forced through the second pair, and afterwards the third. Now if all these rollers revolved with equal velocity, the only effect produced on the cotton would be to flatten or stretch it out; but if the second pair revolve faster than the first, and the third faster than the second, it occasions the cotton to be *elongated* or *drawn out*. The second pair of rollers have a tendency to catch the fibres faster than they are liberated from the first pair, and therefore elongate them to make up the deficiency; the third pair act in like manner. And the very act of pulling or drawing the fibres in this way, also has the effect of straightening and laying them parallel. So important to the subsequent excellence of the woven cotton did Sir Richard Arkwright deem this process, that whenever any defective work was put out of hand, he used to impress on his workmen the injunction, "*mind your drawings*;" no good yarn could be spun unless the *drawing* of the slivers were properly performed. If one single sliver were attempted to be drawn until the suitable parallelism of its fibres were effected, the ribbon would soon become so excessively attenuated as to break; this is one of the reasons why many slivers are united into one during the process of drawing. Several slivers, passing from a row of cans or 'tubs' in which they are deposited by the carding-engine, are caught between three pairs of rollers revolving with different velocities; they are then all united into one, brought into a small space by passing through a funnel, slightly compressed between a pair of rollers, and lastly received in a can. The operation of drawing is generally performed several times in succession.

After the slivers of cotton have passed through the drawing-frame, they go through the operation of *roving*. The object of this is, to draw them out to a greater degree of thinness, and at the same time to impart to them a slight degree of *twist*, sufficient to enable them to be wound on small pieces of wood called *bobbins*; for in their parallel state they are too weak to allow of their being wound. This is performed by machines of various forms, called the *revolving can-frame* the *tube roving-frame*, the *bobbin and fly-frame*, &c., some of which are very complicated. The cotton now obtains the name of *roving*, and some of the rovings are so fine, that one hundred feet of them will weigh but eighty grains: the texture being uniform in every part.

We have thus traced the materials of our cotton gown through the process of sorting, picking, beating, carding, drawing, and roving. The next paper will introduce to us the labors of the spinner.

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## GEOMETRY.

The Greek word *ge*, signifying earth, is a part of the words, Geography, Geology, and Geometry. Of the word geography, grapho, meaning to describe, is also a part. In geology, is *logos*, signifying a discourse, or more literally a word. Geography and geology hence both mean a description of the earth. Though sister sciences, they still are not the same science. Geography describes the situations, and geology the ingredients and structure, of various portions of the earth. The one tells where continents, islands, and mountains are; the other tells what they are. Geography embraces the civil divisions of the earth, such as empires, kingdoms, republics, states, counties, cities, towns and villages. Geology is confined to the natural features of the earth. It is evident that both these sciences are nearly allied, and that the one cannot be fully understood without some knowledge of the other.

In Geometry, *metros*, signifying measure, is added to *ge*. This science, hence, literally means the measure of the earth; and is of course connected with both the other sciences just named. It is not only applied to measuring the earth, and its great divisions, such as continents, islands, and mountains, but every thing in nature or art found upon its surface. It is the science of forms, and relates to every thing that has form; and of course embraces minerals, plants, shells, land, houses, brick, stone, timber, boxes, cisterns, casks, cups, pails, and every other production of nature and art.

Geometry means, not only the measure of the earth and every thing upon its surface, but illustrates the principles on which every kind of mensuration is founded. It is hence more at the foundation of all the sciences and all the arts, than any other science which is or can be understood.

It is also studied by children at an earlier age than almost any other subject. To what subject is the attention of the infant more early called than the forms of objects around him? What subject more delights him? Consequently, what subject can more properly be presented to the attention of young children, than the simple and elementary

principles of the science which first attracts their attention, and greatly interests their feelings.

To furnish experimental lessons on this subject, "*Children's Bricks*," or blocks, three inches by one inch and a half, and three quarters, are better fitted for a child, from one and a half to three or four years old, than any thing else which can be put into his hands. They are more delightful to children than any other toys which can be procured for them, for the simple reason that they afford more employment and more instruction. After being piled in ten thousand different forms, twice as many more remain to employ their hands, and to exercise their inventive powers.

After the bricks, or in connexion with them, the slate and pencil are the most appropriate instruments for children, which they most readily use in forming the elementary figures of geometry, such as squares, triangles, hexagons, circles, ellipses, &c., as already shown.

This practical mode of commencing and to a great extent pursuing the highly practical science of geometry, instead of a mere system of abstractions, changes it from the driest to the most delightful subject pursued in schools. It has often been offered as a reward to secure attention to other lessons. It will attract boys from petty gambling and vicious company in the streets, to highly useful lessons of instruction at their firesides.

Another reason for commencing early, and pursuing thoroughly and extensively, practical geometry, by this practical method, is the general ignorance which prevails on the first principles of the science, and the frequent and unfortunate mistakes in daily business operations, arising from that ignorance; such as the following:—A person who had agreed for the use of water for mill power, which could be discharged through an opening of four inches in diameter, asked the seller what he should pay him for a discharge through an opening of twice the diameter; double the price, was the reply. The purchaser, of course, had four times the water for twice the money.

A person who had purchased a pile of wood of certain dimensions, asked the seller what he should pay for another pile, double those dimensions; double the price, was the answer; selling of course eight times the wood for double the price. The question was proposed to a meeting of two hundred persons, how many times it would take a pitcher, six inches deep and three wide, to fill another of the same shape, and twice the dimensions: no one present was able to give a correct answer. Yet the little boy of five years, with the aid of his "*bricks*," could solve all these and hundreds of similar questions, nearly as fast as they could be proposed.

As geography, geology, and geometry all relate to the globe on which we live, and of courre convey the most useful instruction, as they are all in a high degree delightful to children, and all connected with each other, why not use them all as lessens of early instruction to every child?—*Holbrook's Self Instructor.*

## KNOWLEDGE FOR THE PEOPLE.

BY JOHN TIMBS.

### MECHANICS.

*Why does the rate of steam carriages surpass the utmost stretch of animal power?*

Because the machine by which they are propelled, unlike any animal, rolls along unimpeded in any way by the speed of its own motion.

According to some experiments, recently made by Mr. Bevan, to determine the actual force of draught of carriages upon common roads, it appears that five horses will draw with equal ease the same load upon a good hard turnpike road, as thirty-three horses can do upon loose sand. Or, if we assume the value of draught, upon a well-formed road in good condition, at 6d. per ton per mile, the equivalent price of draught will be upon hard turf, 7½d.; hard loam, 9½d.; ordinary bye-road, 1s. 7d.; newly gravelled road, 2s. 2d.; loose sandy road, 3s. 1d.

The power of some dogs is very extraordinary. Nine Esquimaux dogs, belonging to captain Lyon, dragged 1611 pounds one mile (1760 yards) in nine minutes, and worked in this manner for seven or eight hours a day

*Why are railways more economical than ordinary roads?*

Because, to drag a loaded waggon up one inconsiderable hill, costs more force than to send it thirty or forty miles along a level railway; and the conclusion follows, that although the original expense of forming the level line might materially exceed that of making an ordinary road, still, in situations of great traffic, the difference would soon be paid by the savings; and when once paid, the savings would be as profit ever after.

By way of illustrating the great economy of machinery, we may observe, that in Sedjah, (where the Arabs obtain fine millstones) "their unskillfulness and want of proper implements adapted to their labor, with the expense of carriage from the quarry to the place of sale, each stone requiring a single camel, (wheel carriages and good roads being entirely unknown) occasion an advance above the prime cost at which they might be hewn in England, of at least 500 per cent, each pair of stones costing from ten to twenty pounds sterling."

*Why is a man better enabled than a horse to carry a weight up a steep hill?*

Because the peculiar disposition of the limbs of a man, renders him well fitted for this species of labor; whereas it is the worst method in which a horse can be employed. It has been observed that three men climbing a hill loaded with 100lbs. each, will ascend with greater speed than one horse carrying 300lbs.

The average value of human strength, considered as a mechanical agent, has been variously estimated. Desaguliers considers that a man can raise the weight of 550lbs. ten feet high in a minute, and continue to do so for six hours. Smeaton, however, thinks that six good English laborers will be required to raise 21,141 solid feet of sea-water to the height of four feet in four hours. In this case, they will raise very little more than six cubic feet of fresh water each, ten feet high in a minute. The laborers whom Smeaton supposes to execute this work he considers to be equal to twice the number of ordinary men. It would, therefore, perhaps, be a fair average value of a man's work to estimate it, for a continuance, at half a hogshead of water raised through ten feet in a minute.

The efforts of men differ with the manner in which these efforts are employed. It has been shown by Mr. R. Buchanan, that the same quantities of human labor employed in working a pump, turning a wheel, ringing a bell, and rowing a boat, are as the numbers 100, 167, 227 and 248. The most advantageous manner of applying human strength is in the art of rowing. The strength of an ordinary man walking in an *horizontal* direction, and with his body inclining forward, is however, only equal to 27lb., and it is known by experience, that a horse can draw *horizontally* as much as seven men.

*Why is the power of a steam engine expressed in horse power?*

Because this mode was introduced when steam engines first began to supersede horse mills, when the manufacturer naturally inquired how many horses a steam engine would dispense with. Hence the expression is more practical than scientific.

The power of a horse is understood to be that which will elevate a weight of 33,000 pounds, the height of one foot in a minute of time, equal to about 90 pounds at the rate of four miles an hour. This is a force greater than that exerted by a common cart horse, which is not estimated at more than 70 pounds: that is to say, that a horse, harnessed to a cart, weighing, with its load, forty cwt. or two tons, and drawing on a level road at the rate of four miles an hour, makes use of the same force, as if his traces, instead of being fastened to a cart, were passed over a pulley, and lifted perpendicularly a weight of 70 pounds.

A steam engine consumes about 20 feet of steam per minute for every horse power.

## ORGANIZATION OF INDUSTRY.

BY MEMBERS OF THE ASSOCIATION.

As a striking proof that the present anomolous state of society is not conformed to the moral law of *attraction*, we have only to look to the unsettled aspect of society. In agricultural operations, the extreme division of the land, which is so remarkable in the old countries, (although attended with some advantages,) is yet marked by corresponding evils. The smallness of each lot prevents the application of skill and scientific combinations, and produces a limited and inexpert mode of culture, detrimental to the fertility of the soil. In manufacturing operations, what a waste of energy—what repugnant and poorly compensated labor—what falsehood—what deadly opposition and strife, whether between similar or differedt branches of trade.

In this social state we see a constant struggle for caste—*here* the insolence of wealth; *there* the audacity of the pauper—every where we see falsehood and deception in the divers relations of life, and the oppression of the mass of mankind continued for the support of the few. In our relations with external nature, how powerless is man. In the present state of society he cannot avoid the irregularities and inclemencies of the weather, which shorten prematurely the life of man—or the fearful epidemics which destroy it. Of all these evils there are many which a merely physical association of human beings could banish—but it is only an association conformed to the law of moral attraction which can entirely annihilate them. Before we can secure harmony in our social relations, we must establish harmony in the faculties and passions of man.

Instead of vast centres, towns and cities, where the population are gathered together, without regard to order, health, regularity, or architectural beauty, we propose to group humanity by *communes*, or phalanxes, preserving the proper proportions in number of the inhabitants, and in the disposition of the interior arrangements, as well as in the exterior relations which each association will bear to other associations, according to the law of analogy, and as the heavenly planets have not only a movement of themselves, but another movement around other bodies, while other bodies in their turn have also a movement around others again, so will an association be not only composed of a number of small social circles, called groups, but these groups will revolve around others, called series, and these series will in their turn form the phalanx, or association, which itself is destined to continue the same law of analogy in its relations with other associations in the vicinity.

The prime mover of this social machinery is, as we have before said, the moral attraction. One great discovery, which man will soon learn, is the moral attraction for *labor*. As man enters into the arena of his future destinies, he will learn how sweet and refreshing is properly regulated labor. No proof can be more glaring of the anomalous state of society at the present moment than the fact of labor being held in contempt. What, shall we so blaspheme Deity as to suppose that he has designed that labor should be considered dishonorable at the same time that he has made it the imperious and necessary condition of our very existence.

And yet we see rich men priding themselves in idleness, and by their side their poor fellow creature toiling with repugnance. Evidently there is a sad confession here. The repugnance with which the laborer toils, is not proof that labor in itself is repugnant, but only that God has never willed that man should be condemned to excesssive and ungrateful tasks. The abuse of a thing should never be used as an argument against the proper use of a thing. Moderate and well regulated labor is as conducive to health, happiness and morality, as excessive and badly regulated labor is destructive to these blessings. When a better state of society shall be introduced, the rich and idle members of society will be anxious to participate in that labor with which they now oppress their poorer fellow-citizens. Then labor would be a matter of choice—of taste—of inclination; each will give himself up to the employment which he prefers—an enthusiasm always new, will preside over laborious occupations. When under the law of moral attraction, mankind will be associated by *groups*, the ultimate fraction of society, by *series* which are the association of *groups*, and by *phalanxes* which are the associations of *series*.

A mechanic who has half a dozen good fruit trees will find them more useful than a dozen costly chairs, in a parlor kept for show.

Original.

## THE LORD'S PRAYER.

I.

Our Father who art high in Heaven,
Hallowed be thy eternal name.
O, let thy glorious Kingdom come,
Kindle our hearts with holy flame;
On earth thy righteous will be done,
As in the courts of light above.
Lord of unnumbered worlds!—O grant
Our souls to feel and own thy love.

II.

Give to thy suffering children here
Their daily bread in peace and joy,
And let not aught in life or death,
Our hope in thee, O God! destroy.
Our many trespasses forgive;
Done in this darkened state of woe,
As we forgive each other's wrongs,
Or evils from each secret foe.

III.

Lead not our weak unknowing minds,
Where guileful tempests lurk unseen;
But cover our defenceless heads,
Ever thro' Life's precarious scene,
For thine, O Lord, the kingdom is,
And thine the everlasting power;
Unspeakable thy glories shine,
Be with us at our dying hour. J. H. B.

## HARRY MANDEN.

Twenty years ago, I knew Harry Manden. He was the son of a very poor man, and at the age of thirteen was bound an apprentice to a respectable mechanic in a neighboring village. He was very active and ingenious. He was faithful to his work, and consequently found many leisure hours for sporting with other boys of the village. Several months passed away and Harry seemed to enjoy his time extremely well. He, however, would sometimes meditate seriously on the manner in which he spent his leisure time.

One night after he had gone to bed, lay awake for an hour or two. He said to himself, "What good will all this play do to me? I shall by and by be a man, and then I shall know but little more than barely to work my usual hours, and then play like a boy." After many such firm reflections he fell asleep. He awoke the next morning with the thoughts fresh on his mind, and rose with a determination to devote but half as much time as usual to sport, and the rest of his spare time he would spend in reading books, if he could find any one who would lend him. He finished his regular portion of work for that day long before sundown. He then went to Esquire Tisdale, (who was a very good man) and asked him if he would lend him some books to read. Esquire Tisdale looked at him for a moment with a little surprise, yet with a smile on his face. "And why do you wish books to read?" "Because," said Harry, "I have several hours spare time during the week, which I usually spend with my play-fellows, but I was thinking last night it would be a great deal better for me to spend a part of the time in reading some books that will do me good when I get to become a man. I have no money to buy them, and if you sir will be good enough to lend me one to begin with, I will use it carefully, and be very much obliged to you."

The good man was always delighted with an opportunity to do good; and the honest simplicity of the boy in making this application, heightened his pleasure in granting the request. He not only lent him an interesting little volume for that week, but promised him the use of any book he might wish to read.

Harry went home with his precious treasure, and began to read. He became so well pleased with the book that he spent very little time in the company of his mates. He returned the volume and took another, and several weeks passed over in a similar manner. His mates could not but miss Harry's company as he had been the most active among them. After learning the reason of his absence, they began to laugh at him, ask him if he was going to turn Methodist? Harry had naturally a proud heart, and was not altogether pleased with their ridicule. One night he considered the subject for a long time, after he had gone to bed, doubtful whether he should keep to his favorite pursuit of reading, or yield to the entreaties of his friends, and spend all his spare time in play. He fell asleep without coming to any determination. The next morning he awoke and thought of the subject a few minutes before he arose. It took him but a short time to decide.

He bounced out of bed, snapped his fingers as a sign of his resolution. "What's all their sport to me?" said he; "they may call me Methodist if they please, I will get my knowledge in spite of them. They may have their play and I have my books. So good by my lads, I'll not go with you at all, now." He quit their company, and month after month, and year after year, he pursued a course of reading, which stored his mind with the most valuable information. Esquire Tisdale sought many occasions of conversing with him about what he had read, and opened his mind to that all important subject which relates to the immortality of the soul, and of the only way to escape punishment. He lent him religious books. The effort was not lost. The Holy spirit accompanied the judicous means, and Harry became a penitent believer in the Lord Jesus Christ.

Youthful reader, would you like to know what has become of Harry! He is now one of the most respectable men in our country. His knowledge is extensive, and his society is sought and esteemed by all good men. By his industry he has acquired a competent fortune. He has enough to support his family, and to supply the wants of the poor and afflicted around him. He is, indeed, a happy man, because his house is the house of prayer. He loves his Bible and God, and is constantly looking forward to the day of his death, as to a day that will introduce him to the glories of the heavenly world, where all the saints and the angels of the Lord, and Jesus dwell, to receive all those who love and serve him, into mansions of everlasting happiness.

Where, O, where, is the apprentice that would prefer the tiresomeness of constant play, to the rational and happy course which Harry pursued?

## PRACTICAL EDUCATION OF THE MECHANIC.

In no way can our leisure hours be better employed than in studies connected with our various pursuits. For example; The house carpenter could not possibly succeed in business without understanding not merely arithmetic but mensuration. If he proceed still further, and attain some of the higher principles of mathematics and architecture, the ease with which he lays out his work, and completes his designs, not only saves time, which to him is money, but extends the range of his business, and the probability of final success. Some of the chief rules upon which he depends for the success of his measurements, and the due proportions of the fabrics he rears, owe their origin to the scientific researches of painstaking and learned students, and it is his interest to know and to make use of them.

The iron master, the smith, the metal founder, should have an acquaintance with chemistry. So the dyer, the hatter, and the brewer. The fortunes of these persons, as well as others in similar pursuits, often depend upon a clear, intelligent understanding of the articles they manufacture or compound.

What vast sums of money would have been saved to projectors of machinery, if they had only been even slightly acquainted with some of the most simple truths in mechanics and natural philosophy? How much time would have been saved them, if they could have but known that others had attempted the same thing with themselves and failed, because the attempt *could not* succeed. Or how, on the other hand, the same expenditure of time and money might equally well have been prevented, by ascertaining through the same source that similar inventions had long been known, and were in constant use.

We knew an ingenious person, who spent several years in perfecting a double forcing pump, and when he had arranged it to his entire satisfaction, and was about to patent it, and *so make his fortune*, was shown his machine in a common elementary treatise! The patent office at Washington is full of these examples of wasted time and talent, and are melancholy proofs of the position we have taken.

A striking example of the consequence of intelligent industry was afforded in the instance of the late Jesse Buel, Esq., of Albany. This gentleman was originally a printer, and with a very moderate sum gained by his trade, purchased a small farm near that city. Nothing could be more unpromising than his first attempt to reclaim the morasses and fertilise the sands which constituted his possession. And yet, guided by his studies, led on by experiments, founded on scientific principles, and by carefully adopting every well settled improvement, he lived to make that farm the admiration of the country, to gather the finest grains, the most delicous fruits, and the rarest flowers, from once barren fields—to do it, too, in the shape of a regular annual income of from $7,000 to $10,000. Nor was this all. He gave his experience to his countrymen, in an admirable periodical called the Cultivator, and left behind him the best practical treatise on farming yet written by any American.

Nor was this all. His correspondence was sought for by the learned of Europe, and in 1836 a large number of the people of this state voted for him as their candidate for Governor.

But we have only briefly as yet looked at the effect of practical education upon the personal and pecuniary condition of men. This is the inducement which would operate largely upon most of us, but there is still a nobler view of the subject to be taken. Higher considerations than a flourishing business or a well stored granary are yet to be presented. We do not pretend to have illustrated any part of our subject fully. We present our readers with a bare outline. They must reflect for themselves, and fill that outline up. We claim, however, to have shown, even in this hasty sketch, that education advances every profession in life—at a future day we shall show how it adorns and makes every profession honorable.—*New York True Sun.*

SUBTERRANEAN LAKE AT CONSTANTINOPLE.—We entered a private house, descended a deep flight of steps, and found ourselves on the borders of a subterranean lake, extending under several streets. The roof was arched and supported by 336 magnificent marble pillars; a number of tubes descended into the water and supplied the streets above. Of all the reservoirs which the prudent precautions of the Greek emperors established, this is the only one which now exist as a cistern; and such is the apathy and ignorance of the Turks, that they themselves, it appears, did not, in the time of Gellius, three hundred years ago, and do not at present generally know of its existence. The Turk through whose house we had access to it called it Yere batan Sarai, or the Subterranean Palace, and said that his neighbors, whose houses were also over it, did not know any thing about it. Indeed, from the state of neglect in which the walls and every thing about it appeared, it seemed probable that it had not been visited or repaired since the Turks entered Constantinople. Should the Russians ever approach and lay siege to the city, a supply of water will be its first object. In its present state, if the besiegers cut off the communication with the bendts, which, it is to be presumed, they would do in the first instance, the city could not hold out for a week. It appears that the Sultan has prudently supplied it with corn; it is probable he will clear out the cisterns, and supply it with water also.

"My James is a very good boy," said an old lady, "but he has his little failings, for we are none of us perfect—he put the cat in the fire, flung his grandmother's wig down the cistern, set the barn on fire, and tried to stick a fork in his sister's eye; but these are only childish follies."

ALBANY, THURSDAY, APRIL 27, 1843.

☞ Subscribers who change their residence on the first of May next, will please to give timely notice where they wish their papers left—delays in this respect are apt to be attended with considerable loss and inconvenience.

AERIAL STEAM CARRIAGE.—We this week commence an account of this curious machine, which attracts great attention in London, and has inspired so much confidence in its success, as to induce parliament to appropriate a fund for its encouragement. In our next we shall give an engraving of it.

## WHAT SHALL BE DONE?

This is the question that naturally suggests itself to the mind of the mechanic, or the true friend of the mechanic, in view of the efforts made for relief from the burthen of the State Prison Monopoly, and the unsatisfactory results with which those efforts have been attended. The mechanics in certain portions of the state, and more especially in this county, have made unprecedented exertions, during the last year and session of the legislature, with the hope that this spring would witness the triumph of right and their emancipation from the evil effects of a ruinous competition with favored monopolists, and the disgrace of receiving in their ranks the entire mass of corruption annually discharged from the prisons. It is not to be wondered that in view of these things that the question should be anxiously put—What *now* shall be done? What now can be done? In reply we answer unhesitatingly, in our belief, every thing we have sought to acccomplish can be accomplished by one more energetic, united movement. We have watched the course of affairs during this winter and are far from despondent. We *know* our enemies, their policy and mode of opposition and we know they can "be headed"—with an extra *be*, if necessary—and caught in their own traps and pit-falls. We have found traitors in our camp, and they may gorge themselves on their ill-gotten spoils, purchased by treachery and desertion, while they can, their retribution is at hand. Before one short year rolls round, they may have the opportunity of chewing the bitter cud of reflection, in vain regrets that in an evil hour they submitted to temptation or the influences of designing men. We say, we are far from despondent, for during the past year we have gained much, very much, though we must say we hardly know whom to thank for it, unless that Providence which guides and governs all things. In this case, however, we see no special instruments to whom we should render even secondary gratitude. It may be well to look on the sunny side of the picture and see what we have gained.

*First*—We have succeeded in defeating the plan of interested contractors and agents to have the illegal contracts made since 1835 legalized—although our mechanic Senator, Mr. Bartlett, chairman of the Senate committee on prisons voted in favor of that most infamous scheme. (By the way we trust that Mr. B. may reconsider his course on this subject—and in hope that he will, we shall suspend judgment thereon till another session of our legislature.) By defeating this "*legalising*" project, the illegal contracts, amounting to some sixteen or more, must stop on the first of May next, in accordance with the law of last winter.

By this, further, we gain one great object, the throwing of a portion, at least, of the convicts up on the state, to be supported by the state, as they ought to be. Shut out from society, for the good of society, the whole of community, and not a part should support the prison system. The expense therefore to the state over and above the necessary loss under the present rotten system—(for the system cannot support itself under the most favorable circumstances, so long as the contract feature is retained) will be for the current year, according to the estimates of the inspectors of the prisons, not far from $100,000! Thus we have $100,000 worth of labor from the state, and twice that sum from the contractors, or $300,000 worth of labor in all, thrown into the hands of the mechanics of this state for the coming year. Is this not something gained? Other portions of community being now compelled to share a *part* of the burthen heretofore borne by the mechanics alone, will not be quite so ready to denounce their complaints as "humbug." No telling how bitter a pill it is till you have tasted, so down with $100,000, and no wry faces about it either!

Thus much we have gained this winter, in the *first* place, and this covers just the ground desired, if carried out, and every contract for labor broken up. But the mechanics, inasmuch as it is conceded that the convicts should do something and not remain in idleness—if thereby their labor does not interfere with or injure any portion of community—inasmuch as this is conceded, the mechanics are willing to coöperate with the other portions of community in the adoption of some plan whereby this end can be obtained. And this leads us to the consideration of what we have gained in the

*Second* place. The employment of the convicts in the iron mines would attain this end. This has been satisfactorily demonstrated, and in our opinion the people of the state of New York, knowing that the mechanics will not recede a single inch from what they have gained, will be quite ready after the $100,000 are expended (a sum more than sufficient to have carried the contemplated plan into operation) and before the next legislature meets, to go with the mechanics heart and hand in the adoption of the plan proposed by them and embodied in the bill that passed the Assembly this winter.

Thus much has been gained—and shall we be discouraged and lie supinely down in despair? No—no—though some in whom we confided have turned traitors, though corrupt influences have been brought to bear against us, yet we have learned something and shall be wiser for the future. Experience is a hard teacher, but her pupils seldom forget her lessons.

But then, some one asks, what shall be done? Work friends, enlighten your neighbors on the subject, talk of it in your work shops, discuss it in your meetings, and so far throw off your political prejudices that if need be you can come out as to a man and through the *Ballot box*, speak in such tones that even the Great Dragon of Party, shall tremble. If the worst comes to the worst, this is our safe resort, and that it is an efficient one some of our pretended friends may yet learn to their cost! Up, up and be doing! How many mechanics out of the 175,000 of this state are ready for the onslaught? Ho, working men of New-York, protect your own rights if you want them protected, fight your own battles and God for the Right! This year may decide the battle if efficient measures are taken. So think of these things, ponder on them dispassionately, and when the time comes for action, whatever may come, above all things, ACT!

## NATIONAL ASSOCIATION OF GEOLOGISTS

The National Association of Geologists are now in session in this city. Among them we notice the "Storm King," Prof. Espy, B. Silliman, jr. of New Haven, R. D. Owen, of New Harmony, Geo. B. Emerson of Boston, and many others distindistinguished for their attainments in science. The sessions are held in the spacious rooms of the "Old State Hall," which building the state with princely munificence has allotted for the Geological Museum.

Mr. Owen read a very interesting paper on Wednesday, on distemper painting as applied to the repre sentation of geological subjects, exhibiting at the same time in illustration a number of his paintings, which seem completely to fulfil the desideratum. The method is simple and cheap. We shall take occasion to refer to this paper more in detail at some future time.

Two sessions are held daily, commencing at 9 A. M and 3 P. M., and are open to the public. The scientifically disposed will of course attend. Of the proceedings we shall present our readers an abstract.

## ONE HUNDRED THOUSAND DOLLARS.

Some economical statesmen and newspaper editors were greatly alarmed at the proposition to invest seventy thousand dollars in an iron mine, with a view to the employment of the convicts in working it. Now that the mechanics have succeeded in throwing a part of the burden of supporting the crime of the state upon the whole community, there is a fair prospect that the expenses of the prisons will exceed their income, by many thousand dollars, perhaps $100,000, and the prisoners necessarily be supported in idleness. The responsibility of this matter rests with the senate, which preferred to legalize the existing contracts. An effort was made to induce Mr. Bartlitt, chairman of the prison committee in the senate, to press the bill to its final passage in the short time that remained; and on his refusal to do so, Mr. Sherwood, a lawyer from Wayne county, volunteered his services. Had Mr. S. been backed even then by Mr. Bartlitt, there is a possibility that the bill might have become a law. As it was, the remarks of the latter gentleman had the effect to defeat it utterly—Gen. Root and the member from Albany were triumphant, and the state is saddled with a snug expense for the coming year—an expense which will have the effect to arouse action of some sort next winter. Let not the mechanics delay

their preparations for that contest—it will be the last struggle for independence of state prison thraldom.

## STEAM BOAT SPEED.

We notice an instance of the speed of the excellent boat South America, lately performed, by which she made the passage between New York and Albany in 7 hour and 21 minutes. If we were to take passage for New York in the day time, we should have no objection to any speed that did not take the hair off one's head. But for a night passage we prefer the safe and commodious DIAMOND, with her pleasant saloon and piano, and her excellent state rooms. She arrives at New York at the right hour for all purposes of business and pleasure. The passenger is not disturbed in the midst of his slumbers, by the hurly burly which always takes place when the boat comes to the dock; but having quietly slept out his accustomed time, rises and performs his toilet in season to get a snuff of the fresh air before stepping ashore. A man cannot well be more at home on any steam boat than this.

## RESOLUTIONS.

At a meeting of the Albany County Mechanic Asociation, held at the City Hall on Tuesday evening the following resolutions were adopted:—

*Resolved*, That a committee of five be appointed to report to the next meeting of this Association the most advisable and proper course to be pursued by the mechanics for the ensuing year, and whether it would be advisable to resort to political action.

*Resolved*, That the sincere thanks of this association be returned to those members of the Assembly who advocated or voted for the bill for the relief of the mechanics—particularly to the delegation from New York and Albany—and to Mr. Ruger and Mr. L. Sherwood of the Senate, for their generous and manly course in relation to the state prison question.

The above resolution was directed to be amended by adding the names of those members of Assembly who voted for the Prison Bill. We have them not at hand at present, but will give them next week with the votes bearing on this question in the Senate.

PICTORIAL SUNDAY TIMES.—Paige, Nichols & Krauth, of the New York *Sunday Times*, a spirited and racy paper, propose to issue in a few days an original, humorous pictorial sheet. It will be found at 109 Nassau street, or in this city at Jones' depot, and will doubtless be worth the sixpence charged for it. The lovers of fun can safely prepare for the investment.

☞ Among the New York city papers, the mechanics are indebted to *The* Sun, the *True* Sun, the Evening Post, &c., for frequent editorial articles, advocating the measures which were in progress for the location of a new prison in the northern part of the state. Not one of *those* got alarmed at the idea of the state's buying one of the best mines in the world, even at $70,000, in preference to paying from $50,000 to $100,000 per annum for the support of convicts, as there is a fair prospect the state will be compelled to do, under present circumstances.

THE MUSEUM—has undergone a complete renovation, and opens with new attractions. The citizen and the sojourner may spend a leisure evening there to suit his taste—that is, viewing the wonders of nature and art, or in witnessing the comicalities of the stage.

ERRATUM.—On the preceding page, in the notice of the Geological convention, for R. D. Owen read D. D. Owen.

## INTELLIGENCE.

Printing by electricity is said to be almost accomplished. Mr. Alexander Bain, a native of Scotland, boldly proclaims that he can print any number of copies of a newspaper at any distance from his office by means of wires electromagnetized. As Mr. Bain has invented a clock and telegraph on similar principles, the scientific are very ready to believe a good deal of what he says.

The composition well known as papier mache, and out of which the paper snuff and tobacco boxes are made, is now used in the manufacture of picture frames, which imitate the most splendid carvings, and cannot be distinguished readily from them.

It is said that a steamer has been built on the Thames, called the Waterman No. 9, with two engines and 35 horse power. She is not handsome but has uncommon swiftness. Her ordinary speed with ebb tide is 20 miles an hour. She has frequently gone from London Bridge to Greenwich Hospital, five miles, in fifteen minutes. Thus far our steamers have far outsailed the English.

The Courrier Francais mentions that there is at present residing in the Rue Muller, No. 8, Paris, a person named Despuersonnieres, who has reached the great age of one hundred and thirty-five, and is in the full possession of his intellects.

*Specie at New Orleans*.—It is calculated that within the last six months, eight and a half millions dollars of specie have been received at New Orleans, and about two millions have been taken away.

That black philosopher, Boyer, has taken up his residence at Kingston. Among the articles he stole at Port au Prince, just before his flight, was the crown of Christophe, which is said to be studded with jewels, worth $2,000,000. Generals Inginac and Victor had reached Kingston from Hayti.

The *tailors* are threatened with the loss of trade, and the thimble and the goose to be superseded by the shuttle and loom. Messrs. G. Martin & Co. having introduced into Philadelphia the English invention for weaving coats and pantaloons, and one of the papers speaks of one of their articles as being as comfortable an article of the kind as one could desire for common wear. Drawers and shirts have been woven in that city for some months.

The king of France has presented *William Norris, Esq.*, our celebrated locomotive engine manufacturer, a gold medal, and a gold box ornamented with diamonds, besides giving him an order for the construction of several locomotives.

We learn from the Pittsburg (Pa.) Chronicle, that on Monday night, near the city, the bucket factory and shovel handle manufactory of Mr. Ballard, with its machinery and contents, was destroyed by fire, together with a saleratus factory, and four frame dwellings, occupied by poor families. No insurance. Loss not know, but considerable.

A heifer calf was born on the place of Mr. Perine, Staten Island, last week having two heads with eyes, mouths, jaws and tongues, complete, and six legs. It has but one tail, and that growing erect from the back. It was alive at its birth, but died shortly thereafter.—*True Sun.*

Buffalo, *without* banks, sells drafts on New York one fourth per cent cheaper then Rochester with banks!

The venerable and time-honored old Ramage printing press, brought to Bangor, Me., by the late patriarchal printer, Peter Edes, Esq., has been presented to the Museum of the Bangor Mechanic Association, to be kept in perpetual remembrance as a useful instrument with the pioneers of civilization, in the valley of the Penobscot.

It appears from the papers that along the whole line of the Connecticut the country is inundated. The damage must be immense.

The freshet from the Delaware has made three breaches in the Pennsylvania state canal below Easton, which cannot be repaired in less than ten days or a fortnight.

*Marriage Extraordinary*.—The Siamese twins so often exhibited in all parts of this country, and who have been residing for several years past in North Carolina, where they purchased a plantation, were on Thursday 13th, married at Wilkes Co. N. C. (by elder Colby Sparks, of the Baptist church,) to Misses Sarah and Adelaide, daughters of Mr. David Yates of Wilkes Co. N. C. The wonder is that a Baptist church elder could have been found to aid perpetrating this enormity.—*N. Y. Express.*

The steam boat Mohegan, from New York to Stonington, with 150 passengers, exploded a boiler, while opposite Hurlgate; several were scalded, but no lives lost.

*New Steamboat*.—The Cincinnati Gazette says that a splendid new steamboat named *Harry of the West*, believed to be the largest ever built at that city, was launched there last week. Her extreme length is 232½ feet; her breadth across the guards, abreast of the wheels, 59½ feet, with an eight feet hold. She will carry 750 tons; has forty-two airy state rooms, eight feet square, and a cabin 168 feet long.

*Street Sweeping Machine*.—Dr. A. Jones of this city has invented a Street-sweeping Machine, which appears to us admirably calculated to do the work effectually at a great reduction of cost. It has two modifications; one adapted to dry, the other to muddy streets. Mr. E. Williams, clerk of the Board of Assistants, certifies that this machine was invented early in 1842, before any advices of a similar machine being constructed in England had reached this country. If those having charge of the streets of our cities will but consult the interest of those they act for, Mr. Jones will reap a generous reward for his invention. —*N. Y. Tribune.*

E. Humphreys has published a statement, illustrating the comparative merits of the two systems of Homœpathic and Allopathic practice in the hospital of the state prison at Auburn, during the past year. Under the Homœpathic treatment for seven months, not a single death occurred, and the amount expended for medicine was $71.62. Under the Allopathic, or present treatment for four months, seven persons died, and $283.52 were expended for medicine.

Benjamin Rathbun completes his term of imprisonment in September next. Much seems to be anticipated from his liberation in restoring confidence and business in the city of Buffalo.

An Eagle measuring 7 feet from tip to tip was caught in a fox trap by H. N. Winter, in Hunter, last week, and taken out alive with but little injury. He is now in possession of William W. Edwards, entirely recovered from his fright and his wounds.—*Catskill Messenger.*

It is stated that a number of additional workmen have been taken in at the Philadelphia navy yard, most of whom are employed on the steamer Princeton. Most of the machinery intended for the Princeton is already completed, and it is contemplated to prepare the vessel for its reception during the ensuing summer.

*Novel Lecture.*—We have had all sorts of lectures here for the last year or two, but certainly nothing like a lecture delivered a day or two ago in Philadelphia, in which *T. Oliver*, a "practical and scientific cutter of garments," explained to an audience of eight or nine hundred tailors, his system of measuring, draughting and cutting garments. The lecture, which was illustrated with draughts and diagrams, excited considerable interest; and in the course of the evening the lecturer took the measure of a gentleman, cut out, and fitted upon him a coat body in elegant style. We commend the idea to some of our cultivated Schneiders.—*National Intell.*

We learn by the Paris correspondent of the *National Intelligencer* of a wonderful progress in Sweden of the Temperance cause, which the King, the Prince Royal, and Berzelius, the renowned savant, promote with the most active zeal. All distilleries have been suppressed, at considerable cost, on the Royal estates, and the whole number suppressed throughout the realm is supposed to exceed fifty thousand.

The weather at Vienna has been so mild, says a letter from that city of the 22d Februry that the fruit trees in the neighborhood are already in full blossom. The Government, taking advantage of the weather, have put 30,000 workmen on the railroads which are to be constructed; 6,000 are to be employed on the line between Vienna and Prague.

The *Moniteur* publishes some details of experiments made on silk and cotton grown in Algeria. Specimens of the latter, produced in 1841 in the Government nursery, were sent to Rouen, and delivered to some of the manufacturers. They had it worked up, and have declared unanimously that its excellence is undeniable, and that it bears a great analogy to the cottons of Pernambuco, Bahia, and Maragnan. A specimen, spun bo M. Crepet, jr. of Rouen, was particularly remarked for its beauty. Other experiments are at present being proceeded with at Lille and St. Quentin.

The Boston Transcript says that a man by the name of Robert Fleming Gourlay has published a card in which he proposes "to present himself respectfully before the public, at the Marlborough Chapel," and to narrate in a discourse of two hours' length, the ways and means by which he became enabled to LIVE WITHOUT SLEEP! He certifies that he has not slept for the last fifty two months.

By another blast at the Dover Cliff, in which 7 000 lbs. powder were ignited by means of the voltaic battery, 50,000 cubic yards of chalk were dislodged.

The New Yorkers are getting plenty of milk and mutton by the N. Y. and E. Railroad. 9,500 quarts of milk and 500 calves, were brought down in one day.

Great Britain buys annually of the United States $60,000,000 warth of produce, two-thirds of which is cotton. Massachusetts buys of the other States $12,000,000 worth annually.

*Strange Bird.*—J. M. Wheeler, Esq. of this village shot yesterday, a bird measuring 5 feet in height, and 5 feet 9 inches across the wings. It is blue in color. We call it a *strange* bird and let it go at that.—*Ontario Messenger.*

A man and his wife, named Scanthlin, who were blown up on the steamboat Cutter, at Pittsburg, a few days ago, have had the captain of the boat held to bail in $5,500 to answer a suit for damages.

We learn that the American academy of arts and sciences have subscribed $3,000 towards the purchase of the great telescope. The vote, authorising this liberal subscription, was passed this forenoon.—*Boston Transcript.*

## BUSINESS NOTICES.

☞ All letters and communications intended for this paper should be *post paid to secure attention.*

**Terms for vol. 2.**—To clubs of 20 or more, having the paper sent in one package, $1 each per annum, in advance.
To clubs of not less than 5, sent as above, $1.25 each, in advance.
Single subscribers $1.50, in advance.
Members of the state and county or town associations, subscribing through the secretary, are entitled to the paper at $1 per annum, in advance.
All papers discontinued at the expiration of the time paid for, unless previously renewed.

BINDING.—Subscribers wanting their volumes bound, can have them done in any style and at reasonable prices, by leaving them at this office.
Several volumes of the Mechanic left to be bound some time since are now ready for delivery. The owners are requested to call for them.

LINDLY'S PATENT BEDBUG PROOF BEADSTEDS—REMOVAL. The undersigned having removed from No. 29 Green street, to No. 89 Market street, a few doors north of the Eagle Tavern, where they will be happy to see and wait upon their old friends and patrons. To those who have not seen our bedsteads, we respectfully solicit to call and examine them. One year and a half's residence in Albany, during which time we have been in the manufacture of the above bedsteads, enables us to give references to very many of the best boarding and private houses in this city; but we will only give a few of the public houses, where the information can be most readily had: Congress Hall, Franklin House, City Hotel, and Fort Orange. The fact that such houses as above named have been furnished with them, is sufficient evidence of their superiority over any thing of the kind now in use. A description might be given, but we deem it unnecessary, as we trust that under whose notice this may fall, they will at least call and examine them before purchasing elsewhere.
Persons having good bedsteads that have become loose from use, can have patent rails put to them.
A good assortment of the best and most approved patterns will at all times be kept on hand. For style, workmanship, utility and convenience, we do not intend to be surpassed. Prices to correspond with the times.
TINGLEY & Co. 89 Market st.,
N. B. One of the above firm owning the right of Lindly's patent, of all the eastern states, Michigan, Wisconsin, Iowa, and a large portion of the state of New York, will sell at such rates that will make it an object to go into the business. Good property will be taken in part payment.

**TO HOUSE BUILDERS.**—FOR SALE—an IRON SCREW AND BOX, suitable to be used in removing or raising buildings. Inquire at Blackall's, corner of Hamilton and William streets March 18.

BOOK BINDING.—HARVEY H. CORNING, sign of the golden ledger, 82 State street, Albany, carries on the above business in all its various branches, viz: PLAIN, EXTRA and SUPER EXTRA—has a first rate RULING MACHINE and other necessary implements for manufacturing BLANK BOOKS of every description, on the most reasonable terms, of the best materials and workmanship.
N. B. An assortment kept on hand. 27.

**TYPE AT REDUCED PRICES.**

GEORGE BRUCE & CO., Type founders, at No. 13 Chambers street, near the Post Office, New York, have on hand an unusually large stock of their well known Printing Types, Ornaments, Borders, Rules, &c., of the best metal, cast in original matrices, and very accurately finished, all of which they have determined to sell at

**Greatly Reduced Prices.**

Placing the Book and Newspaper fonts as follows:

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|---|---|---|---|
| Pica, | 32 cts per lb. | Minion, | 54 cts. per lb. |
| Small Pica, | 34 " " | Nonpareil, | 66 " " |
| Long Primer, | 36 " " | Agate, | 86 " " |
| Bourgeois, | 40 " " | Pearl, | 120 " " |
| Brevier, | 46 " " | | |

For approved paper at 6 months, or at 6 per cent. less for cash. Wood Type, Printing Ink, Presses, Cases, Galleys, Brass Rule, Composing Sticks, Chases, and other Printing Materials, furnished with promptitude and at the lowest prices.
☞ Printers of Newspapers who publish this advertisement, with this note, three times, before the first of June, 1843, and send one of the papers to the foundry, will be entitled to payment of their bill on buying four times the amount of it.

**Wood Engraving and Designing.**

E. FORBES is prepared to attend to all business of the above description at the *Sculpture Rooms* 17 Stanwix Hall.

**To Printers.**—FOR SALE CHEAP, a Fount of second hand Pica, about 200 lbs., in good order. Also a quantity of Leads, of different lengths, as good as new. J. MUNSELL.

# PRINTING,

IN

ALL ITS DIFFERENT BRANCHES,

SUCH AS

BOOKS, PAMPHLETS, CARDS, CIRCULARS, BILLS, &C.,

Neatly and Expeditiously Executed at the Lowest Prices,

BY

J. MUNSELL,

At the Office of the MECHANIC, No. 58 State street,

ALBANY.

## WOOD ENGRAVING.

N. ORR, (late pupil of J. H. Hall,) is now prepared to execute any orders in the above business, which he may be favored with, and respectfully solicits a share of patronage.
Room No. 6, 3d floor, Exchange.

Having made arrangements with Mr. N. Orr, to do my wood engraving, I recommend him to the public as one who understands his business and will doubtless give satisfaction.
JOHN H. HALL.
*Albany, Feb. 1st, 1843.*

## LEATHER, OIL, AND FINDING STORE,

*No. 18 Hudson Street.*

J. HOCHSTRASSER,

Will continue the above business at his old stand, and having made arrangements with manufacturers of Leather and Morocco in the cities of NEW-YORK, PHILADELPHIA, and ALBANY, and having in his employ first rate workmen, he is enabled to supply his customers with all the articles in his line on the most reasonable terms, at *Wholesale* or *Retail*, the following are included in his assortment: Oak and Hemlock Harness, Bridle, Collar, Horse, Trunk, Valise and Skirting Leather; Hog Skins, Philadelphia Russet Bridle, do. Facing Skins, do. Lining Hides, do. Top Hides, Patent Leather, Coach Roans, Neats Foot and Liver Oil, Currier's Tools, Oak Sole Leather, Hemlock do., Wax and Grain Upper Leather, do. Calf Skins, Keen's Philadelphia do., Seal and Kip Skins, Splits and Wealt Leather, Cordovan, Red, Green, White and Yellow Linings, Goat and Sheep Binding Skins, White Alum Dressed Linings, Dressed and Undressed Morocco, Colored Goat and Sheep Skins, English Shoe Thread of all numbers, India Rubber and Patent Cloth, Apron Skins, Stock Binding, &c.
N. B. An assortment of SHOE MAKER'S FINDINGS will be kept on hand.
Also, *Roller Skins, Engine Hose, Band, Picker, String*, and *Patent Leather*, on hand and made to order. *Albany*, 1843.

**To Cabinet-Makers and Upholsterers.**

DANIEL FRY, No. 40 State street, *Importer of Cutlery and Hardware*, keeps constantly on hand a good assortment of HAIR SEATING and CURLED HAIR, together with a complete assortment of *Cabinet Makers' Hardware*, which is offered for sale low for cash or approved credit.

## FIRE ENGINES!!

THE subscribers are manufacturing at Waterford, on an extensive scale, Fire Engines of various patterns, to suit purchasers, and they do not hesitate to recommend their Engines as decidedly superior to any now in use.
They manufacture the common Piston Engine, to work with chains or connecting rods, which they have improved in the construction of the brakes and the application of the power, so as to give them a decided advantage over those now in use. They also manufacture Rogers' Patent Balance Fire Engine, which has always been proved to be of *superior* power to all others.

*Prices at the Factory, in complete order for use:*

These designed

| | | | | | |
|---|---|---|---|---|---|
| For 40 men, largest | Philadelphia size or | 11 inch chambers, | | | $850 |
| " 32 " | " | Albany | " | 8 1-4 | " 700 |
| " 24 " | " | Common | " | 7 | " 600 |
| " 16 " | " | N. York city | " | 6 1-2 | " 550 |
| " 12 " | " | Small | | 5 1-2 | " 450 |

These prices are one hundred dollars below what engines have formerly been sold for, but they are reduced to suit the times.
The above prices can be reduced $50, by dispensing with the tower and goose neck and passing the water through the forward end of the machine. The *utility* of such an engine is fully equal to any other form, but its appearance is not quite so good. They also manufacture Factory Engines and Forcing Pumps of all sizes; Suction and Leading Hose to order, both rivetted and sewed, of the best quality.
They have been in the business 8 years, and might furnish many testimonials of good workmanship, &c., but as purchasers are supposed to prefer judging for themselves, the subscribers will furnish an engine where desired, and if on trial it is not fully equal in *all* respects to the *best* engines now in use, they will take it away without charge. Having an unlimited water power situated at the head of sloop navigation on the Hudson river, and near the junction of the Champlain and Erie canal, with a rail road connecting east with Boston and west with Buffalo, our facilities and arrangements for manufacturing are such that orders can be filled at any season of the year, and with the greatest promptness and despatch at the lowest rates.
L. BUTTON & Co.,
*Waterford, Saratoga Co., N. Y.*

## MISCELLANY.

### SCHPRING—EIN BASTORAL.

Der winter is gone away von de blains,
Unt schpring dos dare peauty reshtore!
How bless'd are de gals unt de shwains,
Das now de colt wetter is o'er.

De Shtreams now run shwiftly agin,
Unt de ice melts in de flood,
Unt de deres now to plossom pegin,
Unt all over kreen looks de wood.

Now Shtoffel along mit de milk gal abbears,
Unt he carries her pucket mit klee;
She krins unt she smiles als his life deglares,
How plest unt contented is he!

De glodboles now run to de blain,
Vrom vich so long away dey half peen,
Mit bleasure day meet dare agin,
Unt tance mit dare gals on de kreen.

Mit Bolly, mine shweetheart, I visit de grove
De pirds all so sheerfully abbear,
Unt warbel de shongs of dare lofe,
To welgum de schpring of de year.

## MARY.

I remember when a schoolboy, creeping down stairs one night, after my companions were asleep, to spend an hour with my master's daughter, in her private sitting room. Before I had been with her ten minutes, her mother's footstep was heard so suddenly in the passage, that it was impossible for me to retire without being discovered in my exit. The door by which I entered lay too far for me to hope that I could reach it before the lady would open that which stood opposite. A discovery would have been terrible to both of us, notwithstanding our innocence of heart and purpose. What was to be done?

Mary placed her finger on her lip, looking towards *my* door, and as her mother opened the other, *apparently without accident*, snuffed out the candle! the act was so delicately timed that the old woman saw her using the snuffers, but Mary so hemmed in the light with their hollow part that she never detected my trembling person, crouched as I was behind my young love's chair. During the bustle attendant on the illumination of the candle at a miraculous dull fire, I crawled toward the door and escaped.

"What's that?" asked old Mrs. T.—"What's that galloping across the floor?"

"Peter's mastiff puppy, I suppose, the brute is always here," coolly replied the lass.

Mary! thou blue eyed love of boyhood, where art thou? Many a time have you and I mingled our tears, until the fair tresses that wantoned on thy peachy cheek were damp as the vine tendril,

"Wet wi' the blots o' dew,"

because—alas! because we were too young to be married. We vowed at Christmas, to be constant and patient until Midsummer, and defy fate and run away. But it was our doom never to behold each other again. Well, well, my girl! we had our happy hours! poor fools as we were. Little did either you or I dream, when we were used to meet and chat in the little oaken parlor of —— House, that I should love and kiss so many Marys as I have since I last enfolded thy sylph like form in my boyish arms.

Perhaps little Mary is at this very moment laughing at the remembrance of her tricks with the snuffers, and wondering what has become of me.

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OFFER FOR A HUSBAND.—A Natchez paper tells a good story about an old maid of Vicksburg, who, from a poor apple woman has risen to be the possessor of some $300,000 in money and real estate. For some years past, her operations in Vicksburg and Natchez have been on a large scale; and in the former city she owns about a dozen beautiful houses. She knows but one impulse of action—money. Two or three years ago, the thought struck her that a husband would be convenient, and she resolved to buy one. One day, as Judge Pinkard, brother of Dr. Pinkard, formerly of Lawrenceburgh, Ind., was passing her establishment in Vicksburg, she called him in, and informed him that she wanted him to count some money for her. The reader will recollect that Judge Pinkard is an old bachelor. The Judge, at her request, stepped into the counting room, where she had $100,000 lying upon the table. When he had finished counting the love pile, she informed him that he could have the control of it if he would take her with it! Alas! for gallantry: the Judge decided that the $100,000 was quite desirable, but that the incumbrance was greater than the nett value. So the petitioner was non-suited.

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THE LADIES' NICE MAN.—This is a sort of a Tom Shuffleton grown flat, staid and fortyish, a fop running to seed. The poet of Olney says of such a one,

"I cannot talk with civet in the room,
A fine puss gentleman that's all perfume,
The sight's enough, no need to smell a beau!
Who thrusts his head into a raree show?
His odoriferous attempts to please,
Perhaps, might prosper with a swarm of bees:
But we that make no honey, though we sting,
Poets, are apt sometimes to maul the thing."

The ingredients which go to his composition are: a good face, white teeth, and regular, or as a waggish friend of mine describes them, teeth which keep good hours, a nose that has neither sneers nor snuff about it, though he politely puts himself to the expense of maintaining a box for noses that carry their own sneers, but take any body's snuff, a very moderate share of sense, and an immoderate share of nonsense, mixed according to the Gratiano receipt, that is, in proportion of two grains of wheat to two bushels of chaff; a voice that sounds extremely musical in a "How d'ye do?" in the anti-room, in a quartett or conversation in any room, or in a "good night," at the extremity of the hall stairs; a form which can bend like a willow to a Lord George, or a Lady Fanny; a smile and insinuating sovereign, which purchases my lord's butler, and procures him hot plates, choice bits and frequent changes of both, besides careful helpings on with great coats, infinite care taken of hats, umbrellas, and walking sticks, and gentle shutting of hall and hackney coach doors after him; a smirk that does not displease my lady's confidential maid, when it is accompanied by something more substantial; legs with some probability of calf; ankles as much superior to the Apollo Belvidere as possible; two eyes of one color; whiskers and hair of his own growth; washes, essences, lavender, soaps, toothpicks and powders, tight waist, cossack pantaloons, silk stockings, &c. &c. &c. &c. &c. &c.

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POETICAL TRIFLE.—Some one had a paper folder, with the following line from Gray marked on it:

"The ploughman homeward plods his weary way."

On look at the question, it occurred to him, that it might be expressed in various ways without destroying the rhyme or altering the sense. In a short time he produced the following eleven different readings. We doubt whether another line can be found, the words of which will admit of so many translations, and still retain the original meaning:

The weary ploughman plods his homeward way.
The weary ploughman homeward plods his way.
The ploughman, weary homeward plods his way.
The ploughman weary plods his homeward way.
Weary the ploughman homeward plods his way.
Weary the ploughman plods his homeward way.
Homeward the ploughman plods his weary way.
Homeward the weary ploughman plods his way.
Homeward the ploughman weary plods his way.
The homeward ploughman, weary plods his way.
The homeward ploughman plods his weary way.

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ANECDOTE.—A gentleman of this city, says the Lowell Courier, recently hired an Irishman to work for him a few weeks. Patrick was not particularly early at his work, and he liked to leave off somewhat before sundown. One day, when he was about to close up for the night, his employer said to him—"You need't be in a hurry about leaving off work—you know you did'nt get here in very good season." "Oh, your honor," said Patrick, *would'nt it be a disgrace to me to be late twice in one day.*"

PATENT AGENCY AND MECHANICAL ENGINEERING, *Office on F street, between 7th and 8th streets, opposite the Patent Office, Washington City, D. C.*—The subscriber has resigned his situation in the patent office (where he for some time superintended the restoration of patents destroyed by fire in 1836) to devote himself to the preparation of specifications and drawings, and all matters connected with the obtaining of patents for useful inventions either in this country or Europe. His experience in theoretical and practical mechanics, together with an intimate knowledge of the progress of the useful arts and manufactures, at home and abroad, will enable him to judge of the novelty and utility of inventions submitted to his examination; and as patents are not granted, under the existing patent laws, when the alleged inventions are wanting in novelty, or contravene the established laws of science, he will be able to furnish all the information necessary to avoid the expense of making application for patents which could not be granted

Having established a foreign correspondence, he will be able to secure patents in Great Britain, France, and other parts of the continent, or furnish information, and prepare all the necessary papers for that purpose.

A model for a machine or apparatus, or specimens for a composition of matter, are required by law, before a patent can issue; by sending a model or specimens to the subscriber, with a short statement of the object of the invention, the necessary papers and drawings will be prepared and forwarded to the applicant for execution, thereby obviating the expenses consequent upon a journey to Washington, or delay in issuing the patent.

Being well acquainted with the patent laws of the United States, England and France, and the decisions of the courts in patent cases, he tenders his services where information is required in reference to infringements of patents, or defence against suits for infringement, such as compiling and arranging evidence, &c.

To individuals and companies wishing to procure drawings and estimates of machinery, or buildings, for manufactories, on the most modern and improved plans, or any other matter connected with mechanical engineering, he will furnish information; and, should it be required, will locate and superintend structures of this description.

Wishing to be generally useful to mechanics and inventors, he will attend to the sale of machinery and patent rights; this, being a place of resort from all parts of the Union, is perhaps the best location for such a purpose.

Papers relating to patents can be sent to the commissioner of patents, when luminous, free of postage, and models sent to the collectors of the oprincipal ports, will also come free of expense, and the subscriber can be advised thereof by letter, which in all cases must be post paid. All applications for information relating to patents must be accompanied by a fee of five dollars; charges for other business transactions will be made according to their magnitude. J. JAMES GREENOUGH.

*Certificate of* HON. H. L. ELLSWORTH, *Commissioner of Patents.*

PATENT OFFICE, NOV. 29TH, 1842.

Mr. *J. J. Greenough*, who has for some years been employed in the patent office, in a highly responsible situation, under the act of 1836, restoring the records, having to my regret tendered his resignation, I take great pleasure in recommending him as a gentleman worthy of confidence, and as being particularly qualified to take charge of any business requiring a knowledge of mechanical science, the progress of the arts, and patent improvements. Mr. Greenough is also well acquainted with the practice of this office. HENRY L. ELLSWORTH.

REFERENCES.—Hon. S. Prentiss, of *Vt.*, U. S. Senate; Hon. J. P. Kennedy, of *Md.*, U. S. House of Rep.; Hon. John C. Clark, of *N. Y.*, U. S. House of Rep.; Hon W. Cranch, *Chief Justice, D. C.*; J. W. Hand, Esq., *Chief Clerk, Patent Office*; C. M. Keeler, Esq., *Examiner, Patent Office.*

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WEAVER & RICHARDSON, Umbrellas and Parasols made, covered and repaired, in the neatest and most durable style, at No. 66 Green street, Albany, opposite the first Baptist church. N. B. Umbrellas can be furnished by the dozen at short notice. 47

PRINTING.—Every kind of letter press printing will be done to order on short notice at the office of the Mechanic, in the best manner and at reasonable prices. Business, visiting and wedding cards executed in a superior style on an hour's notice. New and fashionable type for books and pamphlets; hand bills of every size and style; circulars, bill heads, &c. &c.

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Mechanics out of employment may find it a paying business to solicit subscribers for this paper in their vicinities and among their friends. Applications, post paid, directed to this office will meet with attention; they should be accompanied by certificates of character and responsibility.

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